

## NOTES ON GAME-BIRDS.

BY ERNST HARTERT, PH.D.

## I. THE GENERIC NAME OF THE RED-LEGGED PARTRIDGES.

CURIOSLY enough, these birds have hitherto almost universally been called "*Caccabis*." But Kaup (*Skizzierte Entwickelungs-Geschichte und Natürl. Syst. der Europ. Thierwelt*, 1829) gave two names to the group: one, *Alectoris*, on p. 180 (and p. 193), Monotype *A. petrosa* = *barbara*; another, *Caccabis*, on p. 183 (and p. 194), Monotype *C. saxatilis*. We must undoubtedly go by the strictest priority, and accept the first name. Therefore, as *Accipiter palumbarius* has given way to *A. gentilis* and *Anas boschas* to *A. platyrhyncha*, so *Caccabis* must be replaced by *Alectoris*. This would probably have been done before, if in the *Cat. B.* xxii. p. 110, *Caccabis* had not been quoted before *Alectoris*, though both names are given with the correct pages. In lists of synonyms the first name should, of course, always be placed first, even if the author rejects it.

## II. THE CORRECT NAME OF THE BARBARY PARTRIDGE.

While Latham and Gmelin did not identify Edwards's Barbary Partridge and Buffon's Perdrix de Roche ou de la Gambia as one and the same bird—this blunder was apparently first committed by Temminck in *Hist. Nat. Pigeons et Gallin.* iii. pp. 368, 369, and since then everybody has mixed them up—probably no modern ornithologist has read Buffon's description, on which Gmelin's name *Tetrao petrosus* was based, or consulted its source.

Gmelin, *Syst. Nat.* i. 2, p. 758, gave the name *Tetrao petrosus* solely to Buffon's Perdrix de Roche ou de la Gambia (Buffon, *Hist. Nat. Ois.* ii. p. 446). Now, this is what Buffon wrote:

"Cette Perdrix prend son nom des lieux où elle a coutume de se tenir par préférence; elle se plait comme les perdrix rouges, parmi les rochers et les précipices: sa couleur générale est un brun obscur, et elle a sur la poitrine une tache couleur de tabac d'Espagne. Au reste, ces perdrix se rapprochent encore de la perdrix rouge par la couleur des pieds, du bec et du tour des yeux; elles sont moins grosses que les nôtres, et rétroussent la queue en courant; mais, comme elles, elles courent très-vite, et ont en gros la même forme; leur chair est excellente" (Voyez *Journal de Stibbs*, p. 287; and *l'Abbé Prevôt*, tome iii. p. 309).

There is very little in this description that could lead one to believe that the Barbary Partridge was meant by it; no mention of the red, white-spotted band around the throat, none of the brightly coloured flank-feathers, none of the red tail, and the size being less than that of our partridges, and that they erect the tail when running, and last, but not least, the locality, are absolutely against it. But let us see what Stibbs himself said. In Francis Moore's *Travels into the Inland Parts of Africa, etc., to which is added Capt. Stibbs'*

*Voyage up the Gambia* [formerly often called Gambia], in the Year 1723, we find, on p. 287, in the Captain's "Journal of a Voyage up the Gambia,"\* the following :

"Thereabouts are great Stocks of diverse Sorts of Game, particularly Rock Partridges : I call them so, as being mostly amongst Rocks and Precipices. They are of a dark-speckled Colour, having a round Snuff-colour'd Spot on the Breast about as big as a Half-Crown, the Legs and Beak are red, as also a Circle about the Eyes, just as some Pigeons have ; they are not altogether so big as Partridges, but in Shape exactly like them and run as fast, only then this erects the Tail, and appears like a large Chicken. They are exceeding fine Meat, but difficult to kill."

First of all, we must consider where Stibbs obtained these birds: Not far from Barrucunda, about two degrees of longitude up the river, many days inland, under about 14° long. west. It is quite clear that no *Alectoris* (*Caccabis*) is found there. Then the "dark-speckled Colour" disagrees (Buffon left out the important "speckled"), the spot on the breast is only the size of a "half-crown" (in *Alectoris barbara* it is much larger), the size of the bird itself is considerably less than that of a Partridge (while *A. barbara* is not), and, last but not least, it erects its tail when running! No Partridge does this, but the African *Ptilopachus fuscus* (Vieill.) does it, and, in fact, there can be no doubt this is the bird described by Stibbs, and which Gmelin called *Tetrao petrosus*, the dark speckled plumage, the light brown patch on the breast, red feet, beak, and circle round eyes, approximate size, the habit of running with tail erect, and the locality, all agreeing with it, so that the name *Ptilopachus petrosus* will have to take the place of that of *P. fuscus*.

Fortunately, another name is available for the Barbary Partridge. Bonnatte (*Tabl. Encycl. et Méth.* i. p. 208 (1791)) called it "*Perdix Barbara*." This was taken from Edwards, *Nat. Hist. B.* ii. p. 70, pl. 70 (1747). Edwards called the bird "The Red-legged Partridge from Barbary," and figured and described a dark bird. He says: "A pair of these birds were sent to me alive by my good friend Mr. Thomas Rawlings, Merchant, residing at Santa Cruz, in that part of Barbary which lies without the Straights of Gibraltar, on the Atlantic Ocean." We have thus a definite locality, but which "Santa Cruz" can this have been? It is not the old Spanish fort of Santa Cruz near Oran, and I doubt if at that time (though some portions of "Barbary" were safer then than afterwards) Englishmen resided at the present Agadir (formerly Santa Cruz de Berberia), or at Hini, still farther south, formerly called Santa Cruz de Mar Pequeña). Santa Cruz being a very frequent place, Edwards's place of that name was probably in North Marocco, not very far from the Straits of Gibraltar. name In any case, the name *barbara* is doubtless applicable to the dark North African Barbary Partridge. Its name will therefore henceforth be:

***Alectoris barbara barbara* (Bonn.).**

It inhabits Tunisia, Algeria, and Marocco from Tangiers to the southern Atlas. In Tunisia it is found in the north of the Atlas, in Algeria also, and on the Hauts

\* A translation is also found in Arkstee & Markus, *Allgem. Historie der Reisen*, iii. p. 78, 1784, but it is not quite complete, the—to the translator—less important sentences being left out.

Plateaux here and there in suitable places ; we have traced it as far south as Laghouat. In West Algeria we have not come across any Barbary Partridges, except once on the Djebel Murdjadjo near Oran, where we could not shoot them. (Also in Sardinia !)

In Algeria and Tunisia, south of the Atlas, *A. b. barbara* is represented by the very much paler *A. b. spatzi*. Of Marocco south of the Atlas we have no ornithological knowledge whatever.

On the islands of Tenerife, Gomera, and Lanzarote a strikingly more greyish form, *A. b. koenigi*, occurs.

### III. THE FORMS OF THE GREEK PARTRIDGE.

In the *Catalogue of Birds*, xxii. (1893), Mr. Ogilvie-Grant was "satisfied that it is impossible to distinguish more than one subspecies of *C. saxatilis*," and he thus had only one in Europe, "*Caccabis saxatilis*," and another from Greece to China which he called "*Caccabis chukar*." Under the latter name he comprises all forms with the lores white and the ear-coverts chestnut, the throat being more or less buff. The distribution is given as follows :

"*C. saxatilis*. Mountains of Europe : Eastern Pyrenees, Alps, Carpathians, Apennines, and Balkans, also Sicily. (It is doubtful if this bird is the species found in Greece.)

"*C. chukar*. Ranging in the west to the Ionian Islands (and perhaps found on the mainland of Greece), in the east to China, in the north to Mongolia and Turkestan, and in the south to the Persian Gulf and apparently to Aden (*C. arenarius* Hume). Island of St. Helena (introduced)."

This supposed distribution requires considerable alteration, apart from the fact that nowadays even Mr. Ogilvie-Grant would not lump all the Asiatic forms, *i.e.* the "*chukar-group*."

First of all we must consider the specific name, and that is *graeca*, not *saxatilis*. Dr. Richmond in Washington called my attention to the fact that Meisner, *Syst. Verz. der Vög. welche die Schweiz bewohnen*, p. 41, 1804, gave the name *Perdix graeca* to the bird figured on Daubenton's *Pl. Enl.* 231, which must have been a Greek specimen, as Buffon in his text only talks of Greece, the Greek Islands and Cyprus, and not of the Alps at all, as the habitat of the "*Bartavelle ou Perdrix Greeque*." Meisner, of course, believed that the Swiss birds were the same as those inhabiting Greece, but that was not a very great mistake, as the two forms are very closely allied and have only quite recently been separated. I believe Othmar Reiser (*Ornis Balcanica*, iii. pp. 411, 412) was the first to call attention to their differences ; the fact is that the Alpine bird, which must be called *Alectoris graeca saxatilis*, is, on the upperside, less brightly coloured, the grey more tinged with yellowish brown, the interseapulum less reddish, duller, while in *A. graeca graeca* the upper surface is brighter, the colours purer, the interseapulum more reddish, brighter, the edges to the scapulars, rump, and upper tail-coverts purer ash-grey, almost or quite without the dull brownish wash of *A. g. saxatilis*.

*A. g. saxatilis* inhabits the Alpine region from Savoy to Styria, but is absent from the Jura ; probably the birds from the Carpathians (Galicia, Bukowina)

and the "Krassó-Szörényer Komitat" in South-east Hungary also belong to the Alpine form, but I have not examined specimens from there.

*A. g. graeca* inhabits Greece (mainland) and the Ionian Islands (west of Greece), Macedonia, Albania, and ranges westwards to Montenegro, the Herzegovina and Bosnia to Dalmatia, evidently to the Karst. I have examined a few Italian specimens, and I consider that they too, and therefore, I should say, also the few that have survived, so far, in Sicily, and those formerly found on Elba, belong to the south-eastern form. Mr. Ogilvie-Grant had unfortunately not a single skin from Greece, and the one from Zante which he believed to be a "*chukar*" is certainly a *graeca*. Though at present apparently not found on Zante, *A. g. graeca* still occurs on other Ionian Islands.

Forms of the *chukar*-group occur westwards to Asia Minor. Rhodes, Cyprus, and, curiously enough, to the Cyclades and Northern Sporades, which, unlike Cyprus and Rhodes, which belong to Asia Minor, belong geographically to Greece.

The form from Cyprus, of which I have examined a fine series, mostly collected by Glaszner, differs from all named forms. It is nearest to *A. g. koroviakovi* and *falki*, but the upperside is duller, the hind-neck darker grey, back more reddish, and especially the crown of the head is darker, often almost quite dark blue-grey without brown, or with only a faint brown tinge. It is not so dark as *A. g. chukar*, and the crown is less brown. Wings: males, 162-169 mm.; females, 153-157 mm. I name the Cyprus race:

***Alectoris graeca cypristes* subsp. nov.**

Type: ♂ ad., Galata, Cyprus, 21. iii. 1906. Ch. Glaszner leg. (In the Tring Museum.)

I have compared some specimens from Asia Minor (Smyrna, Eregli, Taurus) and Rhodes; some of these agree well with the Cyprus form, others are (especially on the rump) more brownish. I must, provisionally, unite these with *A. g. cypristes*, but I am not sure if, when a good series from similar months of the year is compared, they cannot be again separated.

A great uncertainty prevails about the Greek Partridges inhabiting Palestine and the neighbouring countries. A specimen from Moab, east of the southern part of the Dead Sea, is very pale and belongs probably to the Sinai form (*sinaica* Bp.), of which I have, unfortunately, not been able to compare examples. Also two skins in the British Museum, collected during the last third of March near Karyatein (not Kuryatein!) in the northern Syrian desert, on the road to Palmyra, are very pale, very near to *pallida*, but more reddish. Do they perhaps also belong to *sinaica*?

Two specimens from Engeddi (west of the Dead Sea) and from the "hills of Judaea" are also very reddish, reminding one strongly of *pubescens*; they agree somewhat with the description of *Caccabis chukar*, var. *margaritae* Dawydoff (*Travaux Soc. Imp. Nat. St. Pétersbourg*, xxix. livr. 1898, pp. 57-63 (Russian), p. 86 (German digest)), but Dawydoff says that the crown is pure grey! This is not the case with the Engeddi and Judaea skins, which have the middle of the crown reddish brown. I know only one subspecies with a pure grey crown, and that is *verae*, described from South-west Persia. Specimens from El Bussah and Hule in the Tristram Collection are again a shade darker than those

from Engeddi and Judaea. Dawydoff says that in Western Palestine, his *margaritae* is replaced by *sinaica*! The question is if that is correct—most likely the author had not compared Sinai specimens; he adds that *margaritae* is larger than *sinaica* and darker on the back, but that it differs from “*chukur*” (by which he probably meant *falki* or *koroviakovi*) by the pure grey crown and wide white stripes under the eyebrows, which extend over the greater part of the vertex.

This *margaritae* is said to live quite isolated in the southern part of the depression called El Ghor, and especially on the shores of the Dead Sea (the northern part is meant, no doubt, not the Ghor south of the Dead Sea).

*Alectoris graeca werae* is the large, very pale form, with pure grey crown, which inhabits the Persian provinces of Luristan, Arabistan (Chusistan), and Farsistan, also Bushire. Judging from two very worn summer specimens from Mesopotamia, it would seem that they, too, belong to *werae*, and if that is so, it might even extend further (? ? into Palestine).

*Alectoris graeca koroviakovi* was described by Zarudny under the name of *Caccabis kakelik koroviakovi* (!) in *Message Orn.* 1914, p. 55, in Russian! In this same article (pp. 54, 57, 59) Zarudny renames Hume's *Caccabis pallidus* and calls it *Caccabis kakelik humei*, because Naumann, in 1833, had called a pale variety of the Red-legged Partridge “*Perdix rubra pallida*.” This, however, is no reason for the rejection of that name, as Naumann's names of aberrations have no nomenclatorial standing. Not only are names given to aberrations not considered in the Code of Nomenclature, but it is especially clear that Naumann did not consider his names as of nomenclatorial value, because he used the same names (such as *albus*, *candidus*, *varius*, *pallidus*, *luteus*) over and over again in species after species in the same genus for white, white-spotted, pale, or yellowish aberrations. Buturlin and Zarudny call the species “*kakelik*.” This name was given by Falk (not Falek) in *Beyträge zur topogr. Kenntn. d. Russ. Reichs*, iii. p. 390 (1786). The whole description is: “Schreit beständig kakelik. Grösse einer Kropftaube, Schnabel, Augenbrauen und Füsse brenned roth, Brust grau, Rücken von weiss und grau gewässert. Bucharey, Chiwa, Soongarey.” This description is certainly quite insufficient to identify the species. No doubt the bird calls “*kakelik*,” but the description of the cry is not diagnostic, and, no mention being made of the black circle round the throat, none of the most striking coloration of the sides, and the back not being waved white and grey, the name is unacceptable.

Now as regards the name *koroviakovi*. This name was given to specimens from Eastern Persia (except Khorassan), from the Birdjand Mountains to Persian Baluchistan. From the somewhat conversational and lengthy description (in Russian!) the following description can be extracted: It does not belong to the pale forms (what is meant is, such as *werae*, *pallida*, and *sinaica*). “It is decidedly darker and more strongly pigmented than the Khorassan and Transcaspian,” and the “brightness of colouring is also superior to most of the representatives of the larger *C. kakelik kakelik* from Russian Turkestan. It is specially remarkable for the strong development of a chestnut-brown colour along the middle of the upper part of the head and a deep pink-red-brown colour of the forepart of the back.” Besides the coloration, the small size of *koroviakovi* is remarkable.

These statements of Zarudny are correct. Compared with *Alectoris graeca*

*chukar* from the Indian hills, *koroviakovi* is distinctly lighter and brighter in colour, the breast of a somewhat lighter grey. Wings, ♂ 144–156 mm., once 163 mm., ♀ 140–148 mm.

It is true that the birds from Russian Turkestan, Buehara, and Transcaspia are not the same; they are larger, the colour is less bright, not so reddish, and they appear therefore to me duller, generally darker, though not so dark and dull as *chukar*. Wings. ♂ and ♀ 150–172 mm. I think that the birds from Northern Khorassan are the same too, and probably also those from North Persia south of the Caspian, but Zarudny evidently thinks that they are different again. It is this bird (the one from Russian Turkestan and Buehara) which Zarudny calls “*kakelik*,” and it is the one which probably Falk meant to describe. I therefore call it:

***Alectoris graeca falki* subsp. nov.**

Type: ♂ ad., near Przewalsk, east of Lake Issik Kul, in Russian Turkestan, 26. xi. 1901, collected by Kutzenko. (Tring Museum.)

In the Russian (Moscow) journal *Message Ornithologique*, 1914, p. 59, Zarudny also described another form, which he called “*Caccabis kakelik subpallidus*,” and which I call *Alectoris graeca subpallida* (Zar.). According to the author this form is quite different from “*Caccabis kakelik kakelik*”—my *Alectoris graeca falki*, which belongs to the “dark forms”—and belongs to the “pale forms.” Zarudny—evidently only from the descriptions of *pallida*, without having seen specimens—comes to the conclusion that his birds differ from *pallida* (his “*humci*”) in being smaller, five males having wings of 161–165 mm., fourteen females wings of 148–157 mm. This form inhabits the hills of the desert of Kysyl Kum, west of Semiretchyensk and north of Buehara, and those of Southern Buehara, between the Rivers Surehan and Kafirnagan, Wachs and Pjändj. Birds from those hills were united by Bianchi with his *pallescens*, with which he also associated Hume’s *pallida*. Bianchi was evidently not far wrong in doing this, because the types of *pallescens* and *pallida* are very similar to each other, though the latter appears to be still a bit lighter, and the rump not so greyish, but as the birds are in very worn plumage, this cannot decide anything. While true “*pallida*” is the bird of Eastern Turkestan, being found in Karakash, Yarkand, the Russian Chain (Kwen-Lun) to the Pamir, the distribution of the birds which Hume called *pallescens* is somewhat difficult to explain. They were found at Leh, Ak Masjid and Karbu in Ladak and Cashmere, but are not the form inhabiting Cashmere generally, for nearly all over that country we find birds which do not differ from typical *chukar*, even at Gilgit and as far east as Kohat (Whitehead). I therefore believe that the pale form of East Turkestan ranges over the border into and over the Karakorum Mountains into a few highly elevated districts of Cashmere (Ladak), and that Bianchi was correct in uniting *pallida* and *pallescens*—the latter, unfortunately, being the first name, according to page-priority. In any case Sharpe was wrong when he (*Scientif. Res. Second Yarkand Mission*, Aves, p. 121, 1891) separated “*pallida*” as a species and united “*pallescens*” with *chukar*!

*Alectoris graeca pubescens* (Swinhoe).—This is a somewhat variable form; the characteristic vinous tinge is strongly developed in some, less so in others, and even from the same localities. I am by no means certain that Altai speci-

mens belong to *pubescens*, though Bianchi gives its distribution as "North-western Mongolia and Altai and mountain regions of the middle and lower Yellow River up to the Pechiliski Bay." A skin from the Gobi Desert in the British Museum looks more like *chukar* than like *pubescens*.

#### IV. AMMOPERDIX.

The *Catalogue of Birds* recognises two species, *A. heyi* and *bonhami*. Later on Mr. Ogilvie-Grant described *A. cholmleyi* from North-east Africa, and Zarudny separated two forms of *bonhami*—i.e. *Ammoperdix bonhami bucharensis* from Buchara and *A. b. ter-meuleni* from Arabistan.

*A. cholmleyi* was described in *The Handbook Game-B.* ii. p. 293 (1897), as inhabiting "Egypt and Nubia," but the types came from the Erba Mountains near Suakim. It was said that *cholmleyi* is darker on the upperside and lacks entirely the white forehead and lores characteristic of *A. heyi*. This is perfectly correct, and *cholmleyi* must be considered a good subspecies of *heyi*. Curiously enough, both Mr. Louis Bonhote and Michael Nicoll objected to *cholmleyi* because they had seen, in the Tring Museum, a Palestine specimen without the white lores and forehead. It is very curious that Mr. Nicoll calls the bird *A. heyi heyi*, though he admits that he has not seen an Egyptian male with a white forehead and that they are all darker than *A. h. heyi*. Mr. Nicoll talks of several *A. heyi heyi* without a white forehead, but probably this is a slip. All I can find out is that: North-east African (Suakim, Nubia, Egypt north to Helwan) specimens are darker on the upperside and under-surface (both males and females), and that the males have no white lores or forehead, that ♂ *A. h. heyi* (from South Palestine to Sinai) are paler and have two white loreal spots, more or less distinctly connected by a white frontal line with the exception of one from the Wadi-Kelt (where other males have the white lores and frontal line) which has neither white loreal spots nor frontal line!; the Wadi Kelt birds, however, are quite as light-coloured as other typical *A. h. heyi*. The females of *cholmleyi* are also darker than those of *A. h. heyi*, and in fact like some of "*A. bonhami*."

Unfortunately the latter species must no longer be called *bonhami* but *griseogularis*. That name, "*Perdix griseogularis*," was published April 24, 1843, the description of "*Caccabis Bonhami*" by Gray in May 1843, that of "*Perdix Bonhami*" by Fraser not before November of the same year.

Zarudny (*Orn. Monatsber.* 1911, p. 83) described "*Ammoperdix bonhami bucharensis*" from Buchara, but I cannot admit this supposed subspecies, as the alleged differences are, in my opinion, individual, and specimens from Buchara which I examined are not smaller and agree in every way with typical *griseogularis*.

Zarudny and Loudon (*Orn. Jahrb.* 1904, p. 226) described also an *A. bonhami ter-meuleni* from Arabistan. According to their description the upperside is much more rusty, the back with a vinous tinge, so that the grey colour almost disappears, the crown has a distinct vinous tinge, the light spots on the sides of the neck are "nearly always" strongly rusty.

This description sounds quite convincing, and we are accustomed to paler and more sandy forms in Arabistan. On the other hand, specimens from Bushire and further inland in Farsistan (Witherby coll.) are so very little more sandy on the head and back than typical *griseogularis* in very fresh plumage, in fact one

from the Salt Range in North-west India and another from Kandahar are not distinguishable from those of Farsistan, so that I think this *ter-meuleni* requires confirmation, unless it is quite restricted to Arabistan.

In the *Catalogue of Birds*, xxii. p. 126, the distribution of *heyi*, as I have said above, includes that of *cholmleyi*, and, moreover, it is said to extend "eastwards to Muscat, Persian Gulf." That is a rather sweeping statement, for nothing was then known of any *Ammoperdix* between the west coast of the Red Sea and Sinai and Muscat, though Rüppell, in 1845, said that his *heyi* occurred also at Djedda. Therefore the isolated occurrence at Muscat was remarkable and gave rise to doubts of its identity with the other subspecies. Now several specimens are in the British Museum from Muscat. Mr. Bury found some near Timil in South Arabia, and a female has been obtained near Lahej, north of Aden. One may therefore say that an *Ammoperdix* ranges from Lahej (Aden) to Muscat. This form, however, is neither *A. h. heyi* nor *A. h. cholmleyi*. The males agree with the latter in coloration, but have the two white loreal patches, more or less completely connected by a white line. The ♀ is like those of *A. h. cholmleyi*. Wings of the males, 125–129 mm.

I name this form:

***Ammoperdix heyi intermedia* subsp. nov.**

Type (in the British Museum), ♂ ad. Timil, South Arabia, Bury coll.

I therefore distinguish the following forms of *Ammoperdix*:

1. *A. heyi heyi* (Temm.), 1825: Sinai Peninsula north to the Dead Sea and ravines of the Jordan Valley.
2. *A. heyi cholmleyi* O.-Grant, 1897: western shore of the Red Sea, Nubia, Egypt north to Heluan (Wadi Hof).
3. *A. heyi intermedia* Hart., 1917: South Arabia.
4. *A. griseogularis griseogularis* (Brandt), April 1843: Greater part of Persia, west to Birejik and Kum-Kale on the Euphrates, north to Transcaspia and Buchara, Afghanistan, Baluchistan to Sind and the Indus, and across the Indus Valley to the Khariar Hills and Salt Range in the Punjab.
5. *A. griseogularis ter-meuleni* Zar. and Loud., 1904: Arabistan; distribution and constancy of differences require confirmation.

V. FORMS OF *PERDIX PERDIX*.

The "Grey Partridge" being distributed over nearly the whole of Europe and large parts of Western Asia, and not a migratory, but an entirely or almost entirely sedentary bird, might *a priori* be expected to form a number of local races. This expectation is realised, though not to such an extent as one might have thought. In the *Cat. B. Brit. Mus.* xxii. no subspecies were recognised, nor could the author be expected to describe any, as the series in the British Museum was then very poor and deficient in nearly all the most striking forms, and even now it is poor; for example, there is only one specimen of the Spanish Grey Partridge, not a single one from Italy, none from Brittany or Normandy,



only one from Asia Minor, and hardly any, certainly not enough to draw conclusions from, from the rest of Asia. With regard to the latter, we are just as hopeless in the Tring Museum, but fortunately we have brought together some Pyrenean and a series of Italian examples, and others of value for the study of local races.

The Partridge inhabiting the higher elevations of the Pyrenees and Northern Spain has been fully dealt with in the *Proceedings of the Fourth Ornithological Congress* (London and Tring, 1905) by Professor Dr. Louis Bureau. I need not, therefore, here dwell on its differences and distribution, and will only say that it is a very distinct subspecies.

Comparing a series of Italian Partridges I was not a little surprised to find that they differed at a glance from the Central European *Perdix perdix perdix* and so closely resembled the Pyrenean *P. perdix hispaniensis* (= *charrela*) that at first they seemed to be practically indistinguishable. A more careful comparison showed that they differed from the latter as follows :

In both sexes the upperside is less dark and distinctly more brownish ; jugulum and chest not so dark grey ; the horse-shoe mark in the male (and when present in the female) not blackish brown but chestnut as in normal *P. p. perdix*. The ♂ differs from *P. p. perdix* chiefly by the less rusty or rufous upperside, especially dark brown instead of rufous cross-bars on the rump, and much darker, less reddish brown spots on the upper wing-coverts. The females, because of their coarser markings with the wider light shaft-lines and spots, look rather different from females of *P. p. perdix*. Wings, ♂ 155-159 mm., ♀ 152-158.5 mm.

I name this form :

***Perdix perdix italica* subsp. nov.**

Type : ♂ ad., near Chianti, 20. i. 1905. In the Tring Museum fourteen specimens, compared with nine of *P. p. hispaniensis* and a large series of *P. p. perdix*.

Another very striking Partridge is the one inhabiting the hills of Brittany and Normandy, the so-called "armorican massive." It has been described by Bureau in the very excellent and thorough article on the Pyrenean Partridge in *The Proceedings of the Fourth International Ornithol. Congress*, pp. 497, 498. Its upperside is so entirely rufous brown that the grey ground-colour has quite disappeared and is only visible at the utmost bases when one lifts the feathers. The chest is washed with rufous. The horse-shoe of the male is of a darker chestnut than in normal *P. p. perdix*. Wing, ♂ 153, ♀ 152 mm., but according to Bureau the wing of the male sometimes to 165 mm.

Professor Bureau did not name this form because, on account of the absence of a zone in which no *Perdix* is found (as in the case of *hispaniensis*, the area of which is separated from the regions inhabited by *P. p. perdix* by the "Midi de France," where only *Caccabis* occurs) separating it from its neighbour, *P. p. perdix*, the absence of mountain-ranges or seas, etc., forming a sharp boundary, and the consequent occurrence of intermediate specimens in the stretches along the boundary of the two races. On the other hand, he admits that an ornithologist's eye cannot confound them with the Common Partridge. Reading his remarks I cannot hesitate, though I have examined only one adult male

and female of this race, to name this subspecies, and I propose for it the name :

***Perdix perdix armoricana* subsp. nov.**

Type: ♂ ad., Riaillé, Loire Inférieure, October 1900. Received, with its female, from Dr. L. Bureau. (Tring Museum.)

The other races of *Perdix perdix* will be discussed in one of the forthcoming parts of my book on the palaearectic birds—inshállah.

VI. THE CORRECT NAMES OF THE "BLACK-BELLIED SANDGROUSE"  
AND THE "COMMON FRANCOLIN."

These two species have been called "*Pterocles arenarius*" and "*Francolinus francolinus*" in the *Catalogue of Birds*, and this nomenclature has been followed almost universally. In the *Cat. B.*, however, the twelfth edition of Linnaeus' *Systema Naturae* was generally adopted as the starting-point of nomenclature and not the tenth, which is now taken as the beginning. Therefore Linné's "*Tetrao orientalis*," *Systema Naturae*, ed. x. i. p. 161, is not quoted in the *Cat. B.* xxii., but under *Pterocles arenarius* we find as a synonym "*Tetrao orientalis* Hasselquist, *Reise Paläst.* p. 330, 1762," though the name was not adopted, because of its date being previous to 1766. The more correct quoting would have been as follows: *Tetrao orientalis* Linnaeus, in Hasselquist's *Iter Palaestinum*, p. 278, 1757, as the "Reise" of 1762 is only a translation of the Swedish edition of 1757, which has the title *Iter Palaestinum eller Resa til Heliga Landet*. It was written by Linné, after Hasselquist's death, and Linné says that he added the names of the animals and plants and brought the technical terms into uniformity, without altering the meaning of the author in any way. It is thus clear that the descriptions of the species were actually made by Hasselquist, and this is also evident from their nature, as so many items could only have been taken from fresh specimens, but the names were given by Linné. The name "*Tetrao orientalis*," though before the starting-point of nomenclature in 1757, was adopted by Linné in *Syst. Nat.* ed. x. i. p. 161, and therefore the Black-bellied Sandgrouse must henceforth be called *Pterocles orientalis* (L.), as this name antedates Pallas's *Tetrao arenarius* by thirteen years.

This would be quite a simple matter, but, unfortunately, the appearance of the name *Tetrao orientalis* has also been noticed by Mr. Sergius Buturlin, who misunderstood it and thus caused great confusion.

In an article (in Russian!) in the *Messenger Ornith.* 1910, p. 50, Mr. Buturlin comes to the erroneous conclusion that Linnaeus's name refers to the Francolin, and he therefore calls the latter *Francolinus orientalis*! Unfortunately, Buturlin's article is full of mistakes from beginning to end, and his conclusions are absolutely wrong. Let us examine his article (translated by Roston's Translation Bureau) and see how he came to be so mistaken.

He begins by explaining that Linnaeus had two sections of *Tetrao*, one "*Pedibus hirsutis*," the other "*Pedibus nudis*." Now, *Tetrao orientalis* has the tarsus feathered in front, naked behind. It should therefore have been placed into a third section, but Linnaeus—in whose *Systema Naturae* occur many inaccuracies, obscurities, and errors, as Buturlin truly said—put it into the second

one, with naked tarsi, although in the diagnosis he said, "pedibus antice pilosis," which clearly means, "hairy in front." Buturlin translates this "at the front part slightly hairy," but this is an arbitrary proceeding which cannot be permitted, and when, later on, he says that "pilosus" "may refer to the upper part of the metatarsus of the francolin," this is mere sophistry, as the tarsus is, to all intents and purposes, naked all round and certainly just as bare as in other species in Linnaeus's second section with bare legs. It is true that the words "abdomine gulaque atra, collari ferrugineo" can be applied to both the *Pterocles* and the Francolin, and even more literally to the latter, but they are also (if you like "cum grano salis") applicable to the male Sandgrouse, and the last sentence, "cauda euneiformi," can only refer to the Sandgrouse, which has a euneiform tail, and never to the Francolin, which has a very slightly rounded one. If Buturlin says that the tail of the Francolin is "slightly euneiform," then he is wrong, for it is not, and Linné did not talk of a "slightly euneiform," but of a "euneiform" tail.

The crucial point, however, is: Where did Linné get his diagnosis from? Linné quotes as follows:

*Tetrao orientalis* Hasselq. it. 278, n. 43.

*Perdix damascena* Will. orn. 128.

Francolin Tournef. it. i. p. 158, t. 158.

Referring to these, Buturlin says: "If we turn to Linné's quotations for the confirmation of his deductions, we see that not a single one refers to the Sandgrouse, but the first quotation is *Tetrao orientalis* Hasselq. it. 278, No. 43."

The fact is that Linné took the deciding portions of his diagnosis entirely from (his own) description in Hasselquist's journey, and that, as I have shown above, they refer to the *Pterocles* and not to the Francolin. He then carelessly and erroneously added two quotations, the first of which, from Willughby, referred to a partridge, the second to the Francolin. The deciding source, therefore, is Hasselquist. This has been, apparently, admitted by Buturlin, and that he failed to recognise it is the greatest mistake in his deductions. He says:

"If we turn to that source, that is to Hasselquist's journey in the Levant in 1749-52 (published by Linné himself), we find (I possess the London edition 1766), under No. 43, only the mention of '*Tetrao orientalis*' or 'the Eastern Partridge,' without any description of the plumage. It mentions that its size is that of an ordinary Partridge (which is nearer to the Francolin than to the Sandgrouse) and that it is found in groves and forests of Anatolia. But the Sandgrouse avoids forests and lives in desert tracts; nor is it found in the western parts of Asia Minor."

Thus Mr. Buturlin brings forward three more points against the name *Tetrao orientalis* referring to the Sandgrouse, and in favour of the Francolin, but unfortunately in all three he is wrong.

First of all, the assertion that Hasselquist's book gives no description of the plumage is utterly wrong, and only due to Buturlin not having seen the book at all, but only the *London edition*, 1766. This latter I have not seen, as I only know the original Swedish work of 1757, and the German translation of 1762, which is a good and complete one, and in which the descriptions of animals and plants, in fact the whole second part, is not translated, but reprinted in the original Latin text. Now, both these give a full description, over a whole page,

of both sexes of *Tetrao orientalis*. To show that every word refers only to the Sandgrouse, I quote a few sentences: "Cauda cuneiformis." "Pedum crura brevissima, antice plumosa, postice nuda." "Digiti omnes breviusculi et satis crassi, membrana crassa, parum lobata ad basin juncti." "Ferruginea sunt margines Capitis inferiores, Gula, Collum ad latera. Cana sunt Caput supra et Pectus." "Atra sunt Gula, Abdomen." "Crura anterius albicant." And the description of the female: "Caput totum, collum, dorsum, humeri & cauda ex lineis transversalibus, irregularibus, atris & spatiis irregularibus, majusculis, pallide ferrugineis mixta. Pectus pallide ferrugineum adpersum maculis regularibus, subrotundatis, atris. Margo humeri ferrugineus. Reliqua ut in mari."

The next point raised by Buturlin is the size. He says that in the (mutilated) English text it is described as of "the size of an ordinary partridge," and that the latter is, in his opinion, nearer to the Francolin than to the Sandgrouse. I do not think that this is a point of any importance at all, because there is not much difference between the two, and probably, had Hasselquist, or Linné, described both the Sandgrouse and Francolin, he would in both cases have made a similar comparison. Moreover, in the original text it is said: "Magnitudo Perdici ruffae."

Lastly, objection is made to the locality, because the Sandgrouse is not an inhabitant of forests, and because it did not occur in Western Asia Minor. First of all, to be strictly accurate, we must refer to the original text, and there we find: "Locus: Natoliae saltus." That means, probably, forest-pastures of Asia Minor, and we may add near Smyrna, where Hasselquist was. This objection, too, is of no importance and cannot decide the question, because probably the birds were received from natives, and the exact place added from information received from the latter or some sportsman. Moreover, "saltus" may, according to the dictionary, not only mean forest-clad districts, but also "ravines," and in stony ravines Sandgrouse occurs. Lastly, Mr. Buturlin is badly informed if he says that *Pterocles orientalis* (= *arenarius* auct.) is not found in Western Asia Minor, for it must be common somewhere near Smyrna, because it used to be sold there in the market and Gonzenbach found its eggs.

I am convinced that Buturlin would not have written his unfortunate and misleading article if he had seen Hasselquist's *Iter* or the German translation, instead of an English, obviously incomplete and inaccurate translation, in which evidently such unimportant details (?!) as descriptions of animals were left out.

There is only one more sentence in Buturlin's article which requires a short consideration. He says that "in other parts of his book Hasselquist mentions several times this new Game-bird found by him (letters from Smyrna of December 16, 1749, and of January 29, 1750), and each time under the name of 'Francolin,' a name which has always been applied to the francolins and not to the Sandgrouse." A comparison with the original Swedish text shows that this is quite correct, but the notes are only casual remarks without descriptions, and a supposed vernacular name alone decides nothing about the name of the species. As the real Francolin occurs also in Asia Minor, the name was evidently known to the Europeans in Smyrna and was by them misapplied to the Sandgrouse. Such misapplications of vernacular names are frequent—I know, for

example, that in Marocco some Spanish residents called the Little Bustard "Francolin."

After all this it is, I hope, clear that the Francolin cannot, under any circumstances, be called "*Francolinus orientalis*," as Buturlin would have it, and that the Black-bellied or Imperial Sandgrouse is to be named:

***Pterocles orientalis* (L.).**

Now to the correct name of the Francolin. Linné called a bird *Tetrao francolinus* (*Syst. Nat.* ed. xii. i. p. 275, 1766). The short diagnosis is: "*Tetrao pedibus nudis calcaratis, abdomine gulaque atris, cauda cuneata.*" Wretchedly short as this description is, it does well for the Francolin and excludes any Sandgrouse ("pedibus nudis calcaratis"), except the description of the tail, which is not cuneate in the Francolin; this mistake might either have arisen from Linnaeus mixing up his own *Tetrao orientalis* of 1758 with the *francolinus* of 1766, or from the figure of Tournefort, in which the tail looks as if it were pointed. We must now turn to Linnaeus's quotations. These are rather puzzling, for he first quotes his *Tetrao orientalis*, though not as of 1758 (*Syst. Nat.* ed. x.), but only "Hasselquist, *iter* 278, n. 43." As I have shown above, there is no doubt whatever that the latter is purely and entirely the *Pterocles*, and as the diagnosis (feet bare and with spurs) excludes the latter, the "archiater" clearly made a mistake in thinking (very carelessly) that the *Tetrao orientalis* was the same as the *T. francolinus*. He further quotes Gesner, Tournefort, Olina, Edwards, and Brisson. Of these only Edwards and Brisson give full descriptions, Edwards a coloured, Brisson a black-and-white plate, Tournefort a recognisable black-and-white figure but no description. Gesner contains irrelevant short notes. Olina figures and describes a bird which appears to be the female of the Francolin, and he calls it "franquellino," but he says that it lives in Barbary, in great numbers in Tunisia, but also in Spain, Sicily—and the Alps! Thus most of his localities are wrong. As the spurs (which are only found in the male) are only seen in Edwards's plate, Linnaeus must principally have used Edwards. The locality given by Tournefort is Samos, while Edwards (1758) described the bird from Cyprus. Brisson (1760) mentions Italy, Cyprus, Samos, and Egypt, from where it is said to have been brought to Malta.

In Italy the bird appears only to have been introduced, though it lived formerly in Sicily; in Samos it was common, and may exist now; but it is Cyprus where it occurs even now and used to be common, and from Cyprus specimens Edwards fully described and figured it. I therefore accept *Cyprus* as the terra typica for the *Tetrao francolinus* L., and this is, in my opinion, the only course one can take, moreover the same form occurs in Asia Minor and Samos.

VII. THE FORMS OF *FRANCOLINUS PONDICERIANUS*.

In the *Catalogue of Birds*, xxii. pp. 141-143, no subspecies of *F. pondicerianus* were separated, but three forms are distinguishable.

*Tetrao pondicerianus* Gmelin, *Syst. Nat.* i. 2, p. 760 (1789—ex Sonnerat, *Voyage aux Indes*, ii. p. 165), was described from Pondicherry on the Coromandel coast. The name, therefore, refers to the form inhabiting South India, for example, Tuticorin, Pondicherry, Madras, Mysore, to Ahmednagar and Belgaum, and the northernmost part of Ceylon (Jaffna). This bird is distinguished from

the other forms by the large longitudinal ochraceous patch on the throat, which is surrounded by a (more or less incomplete) line of black spots, and there is a strong ochraceous tinge on the chest.

The rest of British India, from Sindh, the Punjab and Rajputana eastwards to about the 88th degree of longitude, is inhabited by a very similar form, but the middle of the throat is not ochraceous but creamy white, and there is no or very little ochraceous tinge on the chest. This form has no name—it is figured in Gray and Hardwicke's *Ill. Ind. Zool.* as *Perdix orientalis*, but that name is antedated by *Perdix orientalis* of Horsfield, and I name it therefore:

***Francolinus pondicerianus interpositus* subsp. nov.**

Type: ♂ June 1870, Oudh. (Tring Museum.)

A third form inhabits South Persia, Southern Afghanistan, and Baluchistan, and there is a skin from Museat in the British Museum. This form is like *F. pondicerianus interpositus* in the colour of the throat and chest, but the upperside is very much paler, much more greyish. It has been well described as:

***Francolinus pondicerianus mecranensis***

by Zarudny and Härms, *Orn. Monatsber.* 1913, p. 53, the type being from Persian Baluchistan.

We have thus:

*F. pondicerianus pondicerianus* (Gm.), South India and North Ceylon.

*F. pondicerianus interpositus* Hart., North-western India.

*F. pondicerianus mecranensis* Zar. and Härms, South Persia, Baluchistan, Afghanistan.

VIII. THE SUBSPECIES OF *FRANCOLINUS FRANCOLINUS*.

Like so many other game-birds, the non-migratory members of the genus *Francolinus* have developed into a number of geographical races. In the *Catalogue of Birds*, vol. xxii., the latter were, as a rule, not distinguished, though the author, even at that time, condescended now and then to acknowledge subspecies, which, however, in some cases (*vide Perdix damascena, Chrysolophus obscurus*) were not geographical forms.

The disentanglement of the subspecies of *Francolinus francolinus* has caused me considerable difficulty. Not only is material wanting from several important areas, but not less than six supposed new forms have been named by Messrs. Buturlin and Zarudny.

Even a cursory glance at the boxes of *Francolinus francolinus* in the British or Tring Museums shows that there are a number of conspicuous geographical races.

The *francolins* from Cyprus, Asia Minor, and Palestine are separated from those of India and Persia by their large size (long wings); the spurs of the males are always present and often long and pointed, the coloration is dark. As I have explained before, Cyprus is the "terra typica" for the name *francolinus*; *Francolinus vulgaris* is only a new name for *Tetrao francolinus*, *Francolinus tristriatus* (Cyprus) a clear synonym.

*Francolinus francolinus caucasicus* Buturlin, 1907, from "Transcaucasia,"

was described as being large, the rufous ring round the neck wide and very dark chestnut, underside strongly spotted with white, even on the chest and sides of chest. Of these characters (and some others not worth mentioning) the width of the chestnut ring is of no value as it varies according to preparation; the large size and dark chestnut colour of the neck-ring agree fully with *F. francolinus francolinus*. I have only seen one male of this supposed subspecies, in the British Museum; it is said to be from Lenkoran and was received from the Florence Museum, or rather its late director, Professor Giglioli, who had got it from Radde. The locality must be wrong, as Radde expressly stated that it was never found near Lenkoran, and it is probably from the Kura Valley or the Lower Araxes. It agrees with *F. francolinus francolinus*, but is more profusely spotted on the underside, there being some white spots even on the chest—just as described by Buturlin, who had seven males! In this great amount of white spotting the specimen is approached by two males from Cyprus and Asia Minor, but under the circumstances we must, for the time being, provisionally admit this form, *F. f. caucasicus*, as a subspecies. On the same page Buturlin also described a "*Francolinus orientalis sarudnyi*"\* from four males from North Persia and the Lower Atrek. I have hardly any doubt that this "*sarudnyi*" is the same as *caucasicus*, as it differs, in the opinion of Buturlin, merely by wider white bars on the rump, which are about 1 mm. instead of 0.5 mm. wide; the width of these bands varying to some extent, this character cannot, without further material, be admitted as of any value.

A third, very distinct, form is the one inhabiting Sindh, Baluchistan, South-eastern and Southern Persia to Fao and Baghdad. It is altogether paler, lighter, and much smaller. The females, too, are very much lighter. I accept for this form Bonaparte's name *henrici* (*Compt. Rend. Acad.* [Paris], xlii, p. 882, 1856, Sindh). It is true that the description is insufficient, all that is said being "major, alis brevioribus," but as it has smaller wings, this, in connection with the definite locality, makes the name acceptable. That the type was generally larger, was probably due to a greater amount of straw on cotton-wool. As the Sindh birds are quite like those from Persian Baluchistan and Seistan in East Persia, Zarudny's name *boglanovi* ("*Francolinus orientalis bogdanovi*," *Orn. Monatsber.* 1906, p. 151) becomes a synonym. As I find that examples from Fao, from Farsistan (collected by Witherby), and Baghdad (British Museum) are indistinguishable, I am almost sure that "*Francolinus orientalis arabistanicus*," Zarudny and Härms, *Orn. Monatsber.* 1913, p. 54, from the "*Zagrossische und Mesopotamische Gebiet Persiens*," described on feeble grounds, must be the same, too.

Quite different from *F. francolinus francolinus* and *henrici* is the bird from the north-western parts of India. It is, in both sexes, very much like *F. f. francolinus* in coloration, but considerably smaller. The spurs of the male are always short and blunt and sometimes absent. In order not to be obliged to make a new name or to accept the absurd name "*europaeus*," we are justified in adopting Bonaparte's name "*asiae*" for this form. It is true that the whole diagnosis is "Minor ex Asia"—but not "Asia Minor," as Ogilvie-Grant wrongly quoted in the *Catalogue of Birds*! The above of course means that "*asiae*"

\* In phonetic transliteration this ornithologist's name is spelt with an S in German, with a Z in English. Therefore species or subspecies named in his honour have also been spelled with s and z; we have, of course, to preserve the original spelling in each case.

lives in Asia, and is smaller than *F. f. francolinus*. As Bonaparte expressly separated "*henrici*" and was not likely to have the rarer "*melanonotus*," we may accept the name *asiae* for the Francolin from the north-western parts of India. It seems to me that "*Francolinus orientalis europæus*" Buturlin, *Orn. Monatsber.* 1907, p. 81, is a synonym. It was described from a specimen with uncertain locality, believed to be from Greece. As of the many statements of the occurrence of Francolins in Greece none are creditable, we must assume that Francolins never lived in Greece, and therefore dismiss Buturlin's suggested locality. The description of "*europæus*" suits best our "*asiae*." There is only one possibility, *i.e.* that the now extinct Sicilian Francolin was smaller than *F. f. francolinus*, as Dresser said it seemed to be; in that case the name "*europæus*" might refer to that extinct form. I hope to receive, before long, information about this, from Italy, where some specimens from Sicily are preserved, according to Arrigoni degli Oddi.

A last distinct form is *F. francolinus melanonotus* (Hume, *Stray Feathers*, xi. p. 305, 1899, Assam and Manipur). This form ranges from easternmost Nepal to Assam, Manipur, Dacca, Maunbhoom. It has the barring of the rump much finer, the white bars being quite narrow, besides some other differences. The name *melanonotus* was overlooked, and therefore not quoted by the author of vol. xxii. of the *Catalogue of Birds*.

#### IX. *FRANCOLINUS BICALCARATUS* AND ITS RACES.

When Mr. Ogilvie-Grant wrote vol. xxii. of the *Catalogue of Birds*, the British Museum possessed only specimens of the typical *bicalcaratus*, which was described by Linné (1766) from the Senegal (ex Brisson). In 1815, not considering the name *bicalcaratus* suitable, Temminck renamed it *adansonii*, and gave as its locality "Gambia, Niger." Another synonym is *albiscapus* Reichenbach, 1853.

Reichenow (*Vög. Afr. i.*) mentioned the dark coloration of the Sierra Leone specimens, and in 1902 Ogilvie-Grant described them as a new species, under the name of *Francolinus thornei* (*Bull. B. O. Club.* xiii. p. 22). Sierra Leone specimens are indeed much darker on the back, crown, rump, and tail, and the chestnut colour on the breast is, as a rule, darker, the creamy colour less in extent. This is very striking in a series, but some specimens are less typical than others. There can be no doubt that *thornei* is merely a subspecies of *bicalcaratus*, although its distribution is most peculiar. Typical *F. b. bicalcaratus* is not only found in Senegambia, but also on the Niger below Timbuktu, in Hausaland (Zaria), on the Gold Coast (Accra). Also a series collected by Anson in Portuguese Guinea (Bissao, etc.) agrees well with Senegal specimens (ten specimens collected by Riggenbach, all very constant), but a few are somewhat darker, and one is not, so far as I can see, distinguishable from Moroccan specimens. A dark form has also been described by Oscar Neumann (*Orn. Monatsber.* 1915, p. 73) from Garua in Adamaua. According to the description it must be very similar to *thornei*, and a male which the Tring Museum received in exchange from the Berlin Museum, labelled—

Tetrao bicalcaratus L.

Mal. Adamaua ? Ostgrenze ?

Kamerun 33741 v. Carnap,

therefore surely from near Garua, as in Kamerun proper the species does not



occur, is, in my opinion, quite indistinguishable from *thornei*. We would thus have a most extraordinary distribution of this dark form, which requires further investigation.

There is, moreover, a third form of *F. bicalcaratus*. The species occurs also in Western Morocco, *i.e.* within the palaearctic region.

According to Reid (*Ibis*, 1885, p. 251) the late Olcese, natural history dealer in Tanger, received six specimens alive, which were caught by natives inland of Casa Blanca (not Cape Blanco, as Ogilvie-Grant says), and the same author says that this Francolin is said to be "common" near Mogador. Irby states that it is found as far north as Rabat.

The specimens received by Olcese died and were converted into skins. From Mogador several consignments of live specimens have been received in England, but I doubt that the bird is "common" near that town, for F. W. Riegenbach, who very successfully collected there for about two years, in spite of our repeated requests for Francolins, failed to come across it. In fact, I am not aware of a single Francolin obtained in a wild state in Morocco. Of the birds received by Olcese I have examined three, two in the Dresser collection, kindly lent me by the authorities of the Manchester Museum, and one in the British Museum. These birds differ at a glance from our series of topo-typical *bicalcaratus*, the crown being not so pale and more reddish, I should say cinnamon rufous or dark reddish cinnamon. The rest of the upperside is more rufescent, the back slightly darker. The underside is also less light, agreeing with that of *F. b. thornei*. I am convinced that this Moroccan form is a subspecies distinct both from *F. b. bicalcaratus* and *thornei*. The colour-differences of the upperside are not likely to be, the markings of the underside cannot be, due to captivity. Moreover, with these three birds agrees absolutely a well-made skin in the Tring Museum, which is evidently that of a wild bird. Unfortunately its locality is unknown. It is labelled "*Francolinus bicalcordus*" (sic!), South Africa, Dr. Smith. Now, it is certain that no *F. bicalcaratus* occurs in South Africa, therefore this specimen must be from somewhere else, and it might just as well be from Morocco as from elsewhere. Thus far the Moroccan bird would be "all right," but the male collected by Giffard in Gambaga, Togoland Hinterland, is also indistinguishable from the Moroccan birds, and one of *F. b. thornei* from Sierra Leone is on the upperside like it too, while two from the Senegal in the British Museum (G. Blaine coll.) and one of Riegenbach's Senegal males have similarly reddish crowns of the head. The throat feathers of the Moroccan birds are not quite creamy white, but pale reddish cinnamon on their edges, but this is probably of no consequence, as it is found also in some *thornei* and indicated in some Senegal specimens.

The fact of the occurrence of this tropical African species in Morocco is so interesting, that it must be emphasised, and I therefore—though, after all the explanations I have given, I am well aware of the risk and possibility of adverse criticism—propose to separate the Moroccan Francolin and call it:

***Francolinus bicalcaratus ayesha* subsp. nov.\***

Type: ♂ ad., said to be from Rabat, in Morocco, in the Dresser Collection now in Manchester.

\* Ayesha (in the Maghreb in Aïsha) was the favourite wife of Mohammed, and a frequent name in Mohammedan countries.

On the labels of the specimens from the Dresser Collection, which were once in the Lilford Museum, the Arab name is given as "Hadjel-es-Sahara" and "Rarâgh." The former is evidently nonsense, for "Hadjel" is the *Caccabis* (rectius *Alectoris*—see above), but "Rarâgh" may be the genuine name of this species. The label also says that the Britons of Mogador call the Francolin "English Partridge," which would imply that it *was* not rare there—but why did Riggenbach not get it?

There is an excellent plate of this form in Dresser's *Suppl. B. Europe*, pl. 703.

The occurrence of this tropical species in Marocco is only known along the Atlantic coast. Like all the other representatives of tropical species, it must have found its way there along the coast of the Western Sahara, for, as I have pointed out before, all of them are either found only in the north of Marocco, Algeria, and Tunisia, or in the west. The other species to which I refer are:

*Telephonus senegalus cucullatus*, Northern Marocco, Algeria, and Tunisia.

*Pycnonotus barbatus barbatus*, Northern Marocco, Algeria, and Tunisia.

*Asio capensis tingitanus*, Marocco, northernmost Algeria.

*Melierax canoras metabates*, Mogador to Mazagan in Western Marocco.

*Streptopelia senegalensis phoenicophila*, Northern Oasis of Western Sahara.

*Otis arabs*, Marocco and West Algeria.

If any of these birds had crossed the Sahara, they would be most frequent in the southern parts of Africa Minor.

#### X. THE SYNONYMY OF *TETRAO PARVIROSTRIS*.

In the *Cat. B. Brit. Mus.* xxii. p. 66, Mr. Ogilvie-Grant quotes as synonyms of *Tetrao parvirostris*, "*Tetrao urogallus*, var. *rupestris* and *T. u.*, var. *minor* Pallas, *Zoogr. Rosso-Asiat.* ii. p. 58." Both quotations are wrong, as Pallas did not give any such names. Pallas only said that Messerschmid described a smaller variety, and that the bird was called by the Russians "Kamenoï Gluchar," which meant Rock-Capercaillie. ("Messerschmidius *minorem* statuebat *varietatem* Urogalli, ejus foeminam describit:" follows description. Further on, on p. 59: "Russis *Kamenoï Gluchar* (*Urogallus rupestris*) vocatur").

Both names, *rupestris* and *minor*, would have priority over *parvirostris*, if they had been given by Pallas to the species, but *rupestris* would be anticipated by Gmelin in 1789.

The first name of the species is *Tetrao urogalloides* Middendorff, which, however, was anticipated by Nilsson.

I have compared specimens from Sachalin and found them to be indistinguishable from others from the mainland. "*Tetrao urogalloides*, var.  $\beta$  *sachalinensis*" Bogdanoff, 1884, is therefore a synonym of *parvirostris*.